



Commonwealth of Virginia
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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STATEMENT OF LEGAL AND FACTUAL BASIS

Dominion - Brunswick County Power Station
Brunswick County, Virginia
Permit No. PRO52404

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9VAC5 Chapter 80, Virginia Electric and Power Company has applied for a Title V Operating Permit for its Brunswick County facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

A handwritten signature in black ink, appearing to read "Alison M. Sinclair".

Permit Writer:

Alison M. Sinclair
(804) 489-1008

Date: April 12, 2022

Air Permit Manager:

James E. Kyle, P.E.

Date: _____

FACILITY INFORMATION

Permittee

Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, VA 23060

Facility

Dominion Energy – Brunswick County Power Station
20100 Governor Harrison Parkway
Freeman, VA

County-Plant Identification Number: 51-025-0037

Facility Description: NAICS Code: 221112 – Fossil fuel electric generation facility. The facility is a nominal 1400 MW combined-cycle electrical power generating facility utilizing three combustion turbines each with a duct-fired heat recovery steam generator (HRSG) with a common reheat condensing steam turbine generator (3 on 1 configuration). The fuel for the turbines and duct burners is pipeline-quality natural gas. A natural gas-fired auxiliary boiler, three fuel gas heaters, an auxiliary equipment cooler, four inlet chillers, an emergency diesel fire water pump, two emergency generators, several electrical circuit breakers, and a distillate fuel tank are located at this source.

The facility is a Title V major source of NO_x, CO, PM₁₀, PM_{2.5}, and VOC. This source is located in an attainment area for all pollutants, and is a PSD major source. The facility is currently permitted under a PSD Permit issued on December 1, 2020.

COMPLIANCE STATUS

A full compliance evaluation (FCE) of this facility, including a site visit, was most recently conducted on March 30, 2022 and the results are pending. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time (pending the results of the most recent FCE).

EMISSION UNITS AND CONTROL DEVICE IDENTIFICATION

Please refer to the Emission Units tables on pages 4 and 5 of the Title V permit for a list of equipment and air pollution control devices.

EMISSIONS INVENTORY

Actual Emissions

2020 Criteria Pollutant and Greenhouse Gas Emissions in Tons/Year*

Emissions	VOC	CO	SO ₂	H ₂ SO ₄	PM ₁₀	PM _{2.5}	NO _x	CO _{2e}
Total	75.2	22.2	39.0	8.6	165.5	165.5	193.5	4,143,127.6

2020 Hazardous/Toxic Air Pollutant Emissions in Tons/Year

	Acrolein	Beryllium Compounds	Cadmium Compounds	Chromium Compounds	Formaldehyde	Lead	Mercury Compounds	Nickel Compounds
Total	0.13	0.00	0.04	0.05	4.6	0.02	0.01	0.07

FUEL BURNING EQUIPMENT REQUIREMENTS - (T-1M, T-2M, T-3M)

Combined-cycle turbine generators and duct-fired HRSG

Limitations

- Condition 1 of the PSD permit issued December 1, 2020 (Condition 1 of the Title V permit) requires NO_x emissions from the turbine generators and associated duct-fired HRSG to be controlled by dry, low-NO_x burners and SCR to a performance level of 2.0ppmvd at 15% O₂. *This BACT emission limit is more stringent than the NSPS Subpart KKKK NO_x emission limit in Table 1 - for a new combustion turbine, firing natural gas, and with a combustion turbine heat input at peak load (HHV) of greater than 850 MMBtu/hr - of 15 ppm (@ 15 % O₂) or 0.43 lb/MWh.*
- Conditions 4 and 5 of the PSD permit issued December 1, 2020 (Conditions 2 and 3 of the Title V permit) sets requirements for CO and VOC emissions from the turbine generators and associated duct-fired HRSG to be controlled by oxidation catalyst and good combustion practices. *This reflects PSD BACT requirements.*
- Conditions 8 and 9 of the PSD permit issued December 1, 2020 (Conditions 4 and 5 of the Title V permit) sets requirements for SO₂, H₂SO₄, PM₁₀, and PM_{2.5} emissions from the turbine generators and associated duct-fired HRSG to be controlled by the use of pipeline-quality natural gas with a maximum sulfur content of 0.4 gr/100 scf on a 12-month rolling average. *This reflects PSD BACT requirements.*
- Condition 10 of the PSD permit issued December 1, 2020 (Condition 6 of the Title V permit) sets requirements for CO₂-e emissions from the turbine generators and associated duct-fired HRSG to be controlled by the use of low carbon fuel (natural gas) and high efficiency design and operation of the turbine generators and associated duct-fired HRSG and the steam turbine. This shall be demonstrated by compliance with a heat-rate limit for those units of 7,500 Btu/kWh (net HHV output) at full load, corrected to ISO conditions. *This reflects PSD BACT requirements.*
- Condition 11 of the PSD permit issued December 1, 2020 (Condition 7 of the Title V permit) defines periods of startup and shutdown for the turbine generators and requires CEMS operation for NO_x and CO during these periods, as well as minimizing emissions of NO_x during startup by operating the SCR no later than when the load reaches 50 percent of unit output. *This condition provides enforceable limitations on the duration of SU/SD events and provides for compliance determinations during those events.*
- Condition 12 of the PSD permit issued December 1, 2020 (Condition 8 of the Title V permit) defines the alternative operating scenario for turbine tuning and sets operating limitations for that scenario. *This condition provides enforceable limitations on the duration and frequency of tuning while CEMS record the emissions data for compliance with the emission limits during those periods.*

- Condition 13 of the PSD permit issued December 1, 2020 (Condition 9 of the Title V permit) defines the alternative operating scenario for on-line water washing and sets operating limitations for that scenario. *This condition provides enforceable limitations on the duration and frequency of water washing while CEMS record the emissions data for compliance with the emission limits during those periods.*
- Condition 26 of the PSD permit issued December 1, 2020 (Condition 10 of the Title V permit) states the approved fuel for the turbine generators and associated duct-fired HRSGs to be pipeline quality natural gas. *This condition provides enforceable limits on fuel quality to show compliance with the BACT emission limits for these units.*
- Condition 27 of the PSD permit issued December 1, 2020 (Condition 11 of the Title V permit) limits the combined throughput of natural gas to the three turbine generators and associated duct-fired HRSGs to 88,682 million cubic feet on a 12-month rolling total. *This condition provides enforceable limits on fuel quantity to show compliance with the annual BACT emission limits for these units.*
- Condition 40 of the PSD permit issued December 1, 2020 (Condition 12 of the Title V permit) sets limits for short-term emissions of PM₁₀, PM_{2.5}, SO₂, NO_x, CO, VOC and H₂SO₄ from the gas turbines and associated duct-fired HRSGs during normal operation and alternative operating scenarios (tuning and water washing). *This reflects PSD BACT requirements. Compliance is based on periodic testing and/or continuous monitoring of these pollutants.*
- Condition 41 of the PSD permit issued December 1, 2020 (Condition 13 of the Title V permit) sets a CO₂e emission limit of 920 lbs/MWh (net HHV) from the gas turbines and associated duct-fired HRSGs, calculated monthly on an annual average of 12 operating months. Compliance is determined each month by summing the amount of CO₂ emitted for all hours in which power was generated to the grid during the previous 12 months and dividing by the sum of the electrical energy output over that same period. *This reflects PSD BACT requirements.*
- Condition 42 of the PSD permit issued December 1, 2020 (Condition 14 of the Title V permit) sets annual emission limits from the gas turbines and associated duct-fired HRSGs for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, VOC, H₂SO₄, lead, and CO₂e. These emissions include startup and shutdown, maintenance events, and all loads on a 12-month rolling total. *This reflects PSD BACT requirements.*
- Condition 49 of the PSD permit issued December 1, 2020 (Condition 15 of the Title V permit) sets a visible emissions limit from the gas turbines and associated duct-fired HRSGs of no more than 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity (EPA Method 9). This condition applies at all times except during startup, shutdown, and malfunction. *This reflects PSD BACT requirements.*

Monitoring

- Conditions 2 and 3 of the PSD permit issued December 1, 2020 (Conditions 16 and 17 of the Title V permit) require monitoring of the ammonia feed rate and catalyst bed inlet gas temperature to ensure that the SCR on the combustion turbines and duct-fired HRSG is operating correctly as per the manufacturer's written requirements and recommendations as a minimum. *These air pollution control equipment parametric monitoring conditions ensure that the equipment is operating as designed.*
- Conditions 6 and 7 of the PSD permit issued December 1, 2020 (Conditions 18 and 19 of the Title V permit) requires monitoring of the catalyst bed inlet and outlet gas temperatures to ensure that the oxidation catalyst on the combustion turbines and duct-fired HRSGs is operating correctly. *This air pollution control equipment parametric monitoring condition ensures that the equipment is operating as designed.*
- Condition 20 of the Title V permit requires the facility to monitor electrical output and fuel flow to show compliance with Condition 41 of the PSD permit issued December 1, 2020 (Condition 13 of the Title V permit). *The monitoring and recordkeeping requirements in Conditions 41 and 64 of the PSD permit issued December 1, 2020 (Conditions 13 and 33 of the Title V permit) have been modified to meet Part 70 requirements by the addition of Condition 20 to the Title V permit. The facility will need to continuously monitor the net electrical output of the combustion turbine generator and associated steam turbine and the fuel flow to the combustion turbines and duct burners to show compliance with the CO₂ emission factor in Condition 41 of the PSD permit (Condition 13 of the Title V permit) on a 12-month rolling basis.*
- Condition 52 of the PSD permit issued December 1, 2020 (Condition 21 of the Title V permit) requires CEMS to be installed on the stacks for the combustion turbines and duct-fired HRSGs to measure and record emissions of NO_x, CO₂, and CO in ppmvd corrected to 15 percent O₂.
 - The NO_x CEMS shall meet the Part 75 design specifications and the data shall be reduced to a 1-hour block average. The RATA for the NO_x CEMS shall be performed on a lb/MMBtu basis.
 - The CO CEMS shall operate according to 40 CFR 60.13 and the data shall be reduced to a 3-hour block average.
 - The oxygen content of the flue gas shall also be measured and recorded, as well as the heat input and power output.
 - Alternatively to a CO₂ CEMS, CO₂ emissions may be calculated according to Appendix G of Part 75.*These requirements ensure continuous compliance with the BACT limits of the pollutants listed.*
- Conditions 53 through 57 and 59 of the PSD permit issued December 1, 2020 (Conditions 22 through 27 of the Title V permit) require the CEMS to be operated in accordance with 40 CFR 75 and define periods of excess emissions and monitor downtime. *These requirements describe protocols for normal operations and upsets of CEMS.*

Testing

- Condition 28 of the Title V permit requires periodic testing of VOC, PM₁₀, PM_{2.5}, and visible emissions, approximately every five years for the turbines to show compliance with the limits in the permit. Additionally, Conditions 28 and 61 of the PSD permit issued December 1, 2020 (Conditions 29 and 30 of the Title V permit) require annual performance testing for SO₂ in the form of fuel testing or stack testing to show compliance with the fuel sulfur limits in Conditions 8, 9, and 40a of the PSD permit (Conditions 4, 5, and 12a of the Title V permit). Condition 62 of the PSD permit issued December 1, 2020 (Condition 31 of the Title V permit) requires that the heat rate from the power blocks be tested every five years to show compliance with the limit in Condition 10 of the PSD permit issued December 1, 2020 (Condition 6 of the Title V permit). *The PSD permit did not contain specific periodic testing for VOC, PM₁₀, PM_{2.5}, and visible emissions so periodic testing Condition 28 was added to the Title V permit. The requirement for SO₂ testing complies with 9 VAC 5-50-30 and is based on NSPS Subpart KKKK, §60.4415. These requirements fulfill the Part 70 requirements for continuous compliance demonstrations.*

Requirements by Reference

- Condition 39 of the PSD permit issued December 1, 2020 (Condition 32 of the Title V permit) requires the facility to be in compliance with NSPS Subpart KKKK. A table listing of the regulatory citations for NSPS Subpart KKKK requirements for NO_x and SO₂ from the turbines was added to the Title V permit. *These requirements are from 40 CFR 60 Subpart KKKK for emission standards, compliance demonstration, monitoring, reporting and testing.*

Recordkeeping and Reporting

- Condition 64 of the PSD permit issued December 1, 2020 (Condition 33 of the Title V permit) includes requirements for maintaining records of all monitoring and testing required by the permit for the combustion turbines and duct burners. These records include fuel throughput, SSM records, fuel quality records, records to determine CO₂e emissions on a lb/MWh basis, CEMS data, control device monitoring records, instances of alternative operating scenarios, records of maintenance, and stack test records. *Records are used to determine compliance with the PSD and Title V permit requirements.*
- Condition 58 of the PSD permit issued December 1, 2020 (Condition 34 of the Title V permit) requires quarterly reporting of excess emissions, as identified by the requirements in Condition 59 of the PSD permit (Condition 25 of the Title V permit) or other continuous monitoring. *This requirement can be found in 9 VAC 5-50-50 and in 40 CFR 60.4375 in NSPS Subpart KKKK.*

FUEL BURNING EQUIPMENT REQUIREMENTS

Auxiliary boiler (B-1) and fuel gas heaters (GH-1, GH-2, GH-3)

Limitations

- Condition 14 of the PSD permit issued December 1, 2020 (Condition 35 of the Title V permit) requires NO_x emissions from the auxiliary boiler and fuel gas heaters to be controlled by ultra low NO_x burners to a level of 9 ppmvd at 3% O₂. *This is a PSD BACT requirement.*

- Condition 15 of the PSD permit issued December 1, 2020 (Condition 36 of the Title V permit) requires CO and VOC emissions from the auxiliary boiler and fuel gas heaters to be controlled by good combustion practices, operator training, and proper emissions unit design, construction, and maintenance to a level of 50 ppmvd at 3% O₂. *This is a PSD BACT requirement.*
- Condition 16 of the PSD permit issued December 1, 2020 (Condition 37 of the Title V permit) requires SO₂ and H₂SO₄ emissions from the auxiliary boiler and fuel gas heaters to be controlled by the use of pipeline-quality natural gas with a maximum sulfur content of 0.4 gr per 100 standard cubic feet (scf). *This is a PSD BACT requirement.*
- Condition 17 of the PSD permit issued December 1, 2020 (Condition 38 of the Title V permit) requires PM₁₀ and PM_{2.5} emissions from the auxiliary boiler and fuel gas heaters to be controlled by good combustion practices and the use of pipeline-quality natural gas with a maximum sulfur content of 0.4 gr per 100 scf. *This is a PSD BACT requirement.*
- Condition 18 of the PSD permit issued December 1, 2020 (Condition 39 of the Title V permit) requires CO_{2e} emissions from the auxiliary boiler and fuel gas heaters to be controlled by the use of natural gas fuel an high efficiency design and operation. *This is a PSD BACT requirement.*
- Condition 26 of the PSD permit issued December 1, 2020 (Condition 40 of the Title V permit) limits the fuel to the auxiliary boiler and fuel gas heaters to only pipeline quality natural gas with a maximum sulfur content of 0.4 grains per 100 scf. *This is a PSD BACT requirement.*
- Conditions 29 and 38 of the PSD permit issued December 1, 2020 (Conditions 41 and 42 of the Title V permit) limits the throughput of fuel to the auxiliary boiler and fuel gas heaters, respectively. *These are PSD BACT requirements to limit emissions from those units.*
- Conditions 43 and 48 of the PSD permit issued December 1, 2020 (Conditions 43 and 44 of the Title V permit) limits the emission of short-term and annual emissions from the auxiliary boiler and fuel gas heaters, respectively. *These are PSD BACT requirements to limit emissions from those units.*
- Condition 50 of the PSD permit issued December 1, 2020 (Conditions 45 of the Title V permit) limits the visible emissions from the auxiliary boiler and fuel gas heaters to no more than 10 percent opacity. *This is a PSD BACT requirement to ensure the units are being operated properly.*

Testing

- Condition 46 of the Title V permit requires performance testing for NO_x, CO, and visible emissions evaluations on the auxiliary boiler every five years to show compliance with the emission limits in Conditions 14 and 15 of the PSD permit (Conditions 35 and 36 of the Title V permit). *This requirement was not included in the PSD permit so it was included in the Title V to fulfill Part 70 requirements for continuous compliance demonstration for the boiler.*

Requirements by Reference

- Condition 39 of the PSD permit issued December 1, 2020 (Condition 47 of the Title V permit) requires the facility to be in compliance with NSPS Subpart Dc. *This requirement is from 40 CFR 60 Subpart Dc.*

Recordkeeping

- Condition 64 of the PSD permit issued December 1, 2020 (Condition 48 of the Title V permit) includes requirements for maintaining records of all monitoring and testing required by the permit. These records include monthly and annual fuel throughput, fuel quality records, and stack test results, as well as records of maintenance and manufacturer's instructions for proper operation of the units. *These recordkeeping requirements will be used to demonstrate compliance with the requirements of this permit as per 9 VAC 5-50-50 of the Virginia Regulations.*

FUEL BURNING EQUIPMENT REQUIREMENTS - (EG-1, EG-2, EG-3, FWP-1)

Emergency units

Limitations

- Conditions 19 through 21 of the PSD permit issued December 1, 2020 (Conditions 49 through 51 of the Title V permit) require emissions from the emergency engines and fire water pump (EG-1, EG-2, and FWP-1) to be controlled through good combustion practices, clean/low sulfur fuel, low carbon fuel, and high efficiency design and operation. *These are BACT requirements.*
- Conditions 30 through 32 of the PSD permit issued December 1, 2020 (Conditions 52 through 54 of the Title V permit) set the fuel quality characteristics for the emergency engines and fire water pump (EG-1, EG-2, and FWP-1). *These are BACT requirements.*
- Conditions 33 and 34 of the PSD permit issued December 1, 2020 (Conditions 55 and 56 of the Title V permit) limit the operation of the emergency engines and fire water pump (EG-1, EG-2, and FWP-1) to no more than 500 hours per year. *These are BACT requirements.*
- Condition 35 of the PSD permit issued December 1, 2020 (Condition 57 of the Title V permit) defines what constitutes emergency operation. *This clarifies the requirements for operation of these units.*
- Condition 36 of the PSD permit issued December 1, 2020 (Condition 58 of the Title V permit) requires fuel certification for the fuel combusted in the Emergency diesel engine and diesel fire water pump (EG-1 and FWP-1). *This requirement provides a means of compliance demonstration for the fuel characteristics requirements.*
- Condition 37 of the PSD permit issued December 1, 2020 (Condition 59 of the Title V permit) requires that the emergency engines and fire water pump have written instructions or procedures for proper operation. *This provides reasonable assurance that the units will be properly operated and maintained, keeping the units operating efficiently and minimizing emissions.*

- Conditions 45, 46, 47, and 51 of the PSD permit issued December 1, 2020 (Conditions 60 through 63 of the Title V permit) restrict the emissions from the emergency generators and fire water pump (EG-1, EG-2, and FWP-1). *These emission limits represent BACT for these units.*

Monitoring

- Condition 22 of the PSD permit issued December 1, 2020 (Condition 64 of the Title V permit) requires the installation of a non-resettable hour meter on the emergency engines and fire water pump (EG-1, EG-2, and FWP-1). *This provides a means to enforce the limit on the hours of operation of these units.*

Requirements by Reference

- Conditions 65 and 66 of the Title V permit require the facility to be in compliance with NSPS Subparts IIII (for EG-1 and FWP-1) and JJJJ requirements (EG-2 and EG-3), as well as MACT Subpart ZZZZ requirements. *The units must be certified to meet the applicable emission standards and are subject to monitoring, notification, and recordkeeping requirements.*

Recordkeeping

- Condition 64 of the PSD permit issued December 1, 2020 (Condition 67 of the Title V permit) includes requirements for maintaining records of all monitoring and testing required by the permit, including fuel certifications, stack test results, and hours of operation for the permitted engines (EG-1, EG-2, and FWP-1). *These recordkeeping requirements will be used to demonstrate compliance with the requirements of this permit as per 9 VAC 5-50-50 of the Virginia Regulations, 40 CFR 60, and 40 CFR 63.*

PROCESS EQUIPMENT REQUIREMENTS - (AEC-1 and IC-1 through 4) Delugeable Auxiliary Equipment Cooler and Inlet Chillers

Limitations

- Condition 23 of the PSD permit issued December 1, 2020 (Condition 68 of the Title V permit) restricts particulate matter emissions from the inlet chillers by limiting the drift rate and total dissolved solids in the cooling water. *These BACT requirements ensure that particulate matter from the inlet chillers is minimized.*
- Condition 24 of the PSD permit issued December 1, 2020 (Condition 69 of the Title V permit) restricts particulate matter emissions from the delugeable auxiliary equipment cooler by limiting the drift rate and total dissolved solids in the cooling water. *These BACT requirements ensure that particulate matter from the equipment cooler is minimized.*

Monitoring and Testing

- Conditions 23 and 24 and of the PSD permit issued December 1, 2020 (Conditions 68 and 69 of the Title V permit) require that the total dissolved solids content of the cooling water be tested weekly and a log of the results shall be maintained on site. *These requirements show compliance with the dissolved solids limitations in the permit and ensure that particulate matter from the equipment cooler is minimized.*

Recordkeeping

- Condition 64 of the PSD permit issued December 1, 2020 (Condition 70 of the Title V permit) includes requirements for maintaining records of all monitoring and testing required by the permit, including weekly logs of the dissolved solids content of the cooling water, maintenance, training, and instructions for proper operation of the units. *These recordkeeping requirements will be used to demonstrate compliance with the requirements of this permit as per 9 VAC 5-50-50 of the Virginia Regulations.*

PROCESS EQUIPMENT REQUIREMENTS - (CB-1 through CB-14)

Circuit Breakers

Limitations

- Condition 25 of the PSD permit issued December 1, 2020 (Condition 71 of the Title V permit) limits emissions of greenhouse gas (SF₆) from the electrical circuit breakers by limiting the maximum annual SF₆ leakage rate from the circuit breakers to 0.5 percent. *This is a BACT requirement based on the manufacturer's recommended operating specifications.*
- Condition 44 of the PSD permit issued December 1, 2020 (Condition 72 of the Title V permit) contains annual emission limits of SF₆ based on the restrictions in Condition 25 of the PSD permit (Condition 71 of the Title V permit). *This is a BACT requirement.*

Monitoring

- Condition 25 of the PSD permit issued December 1, 2020 (Condition 71 of the Title V permit) requires that the circuit breakers have low-pressure detection systems installed which trigger an alarm if low pressure is detected. *By alerting the permittee to SF₆ leakage, the emissions of greenhouse gas will be limited to below the emission limits found in Condition 44 of the PSD permit (Condition 72 of the Title V permit)*

Recordkeeping

- Condition 64 of the PSD permit issued December 1, 2020 (Condition 73 of the Title V permit) includes requirements to keep records showing the circuit breakers are operating in accordance with the manufacturer's specifications listed in Condition 25 of the PSD permit (Condition 71 of the Title V permit). *These recordkeeping requirements will be used to demonstrate compliance with the requirements of this permit as per 9 VAC 5-50-50 of the Virginia Regulations.*

PROCESS EQUIPMENT REQUIREMENTS – Facility Wide Limitations

- Condition 74 of the Title V permit requires monthly visible emissions observations to determine if visible emissions are present and take action if visible emissions are present. *This requirement pertains to emission units that did not have such requirements included in the underlying PSD permit (GH-1, GH-2, GH-3, EG-1, EG-2, and FWP-1). This requirement provides for Part 70 periodic monitoring to show compliance with the opacity limits within the permit, which is also an indicator of the proper operation of the equipment (fuel gas heaters and emergency generators).*
- Condition 60 of the PSD permit issued December 1, 2020 (Condition 75 of the Title V permit) requires the facility to be constructed to allow for emission testing, upon reasonable notice, using appropriate methods. *This requirement is based on 9 VAC 5-50-30 of the Virginia Regulations.*
- Condition 63 of the PSD permit issued December 1, 2020 (Condition 76 of the Title V permit) gives DEQ the authority to request the facility conduct additional performance tests to determine compliance with the emission limits contained in this permit. *This requirement is based on 9 VAC 5-50-30 of the Virginia Regulations.*
- Condition 77 of the Title V permit requires that, if additional testing is conducted, appropriate testing methods shall be used. *This condition is based on 9VAC 5-50-30 of the Virginia Regulations and is included to ensure that appropriate test methods be used.*
- Conditions 65 through 72 of the PSD permit issued December 1, 2020 contain General Conditions applicable to all permitted facilities in Virginia. These include reasons for NSR permit suspension or revocation, the allowance to be inspected, the requirement to maintain and properly operate the facility, to develop a maintenance schedule and train personnel in proper operation of the equipment and provide written operating procedures, to record instances of malfunction and corrective actions taken, to notify DEQ of the malfunction, to curtail or shut down operations during an air pollution episode if requested by DEQ, to maintain a copy of the permit on the premises of the facility, and states that permits are transferrable to new owners. *These Conditions are not duplicated verbatim in the Title V permit since the Title V permit has similar General Conditions that overlap with many of the General Conditions of the PSD permit.*

STREAMLINED REQUIREMENTS

None. The Title V permit includes all the requirements in the PSD permit issued December 1, 2020.

INSIGNIFICANT EMISSIONS UNITS

- Condition 78 of the Title V permit identifies insignificant emission units. The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation ¹	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
ST-1	Distillate fuel tank	5-80-720B.2	VOC	6,000-gallon storage capacity
IS-1 through IS-4	Three CO ₂ fire suppression system tanks and one CO ₂ generator purge tank	5-80-720.A.27	CO ₂	IS-1 through IS-3 - 12,000 lbs IS-4 - 28,000 lbs

¹The citation criteria for insignificant activities are as follows:

- 9VAC5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
- 9VAC5-80-720 B - Insignificant due to emission levels
- 9VAC5-80-720 C - Insignificant due to size or production rate

PERMIT SHIELD AND INAPPLICABLE REQUIREMENTS

- Condition 79 of the Title V permit identifies inapplicable requirements for this facility.

GENERAL CONDITIONS

The permit contains general conditions (Conditions 80 through 112 of the Title V permit) required by 40 CFR Part 70 and 9VAC5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

Federal Enforceability

Article 1 (9VAC5-80-110 N) states that all terms and conditions in the Title V permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

Permit Expiration

This condition refers to the Board taking action on a permit application. The “Board” refers to the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

Failure / Malfunction Reporting

Section 9VAC5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9VAC5-20-180 is from the general regulations. All affected facilities are subject to section 9VAC5-20-180 including Title V facilities. A facility may make a single report that meets the requirements of 9VAC5-20-180. The report must be made within four daytime

business hours of discovery of the malfunction.

Permit Modification

This general condition cites the sections that follow:

- 9VAC5-80-50. Applicability, Federal Operating Permit for Stationary Sources
- 9VAC5-80-190. Changes to Permits
- 9VAC5-80-260. Enforcement
- 9VAC5-80-1100. Applicability, Permits For New and Modified Stationary Sources
- 9VAC5-80-1605. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas
- 9VAC5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

TITLE IV (PHASE II ACID RAIN) PERMIT ALLOWANCES AND REQUIREMENTS

In accordance with the Air Pollution Control Law of Virginia §10.1-1308 and §10.1-1322, the Environmental Protection Agency (EPA) Final Full Approval of the Operating Permits Program (Titles IV and V) published in the Federal Register December 4, 2001 Volume 66, Number 233, Rules and Regulations, pages 62961-62967 and effective November 30, 2001, and Title 40, the Coded of Federal Regulations §§72.1 through 76.16, the Commonwealth of Virginia Department of Environmental Quality issues Phase II Acid Rain permits pursuant to 9 VAC 5 Chapter 80, Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution (Article 3 Federal Operating Permit).

The provisions of the Phase II Acid Rain permit are included as part of this permit and are incorporated in Conditions 113 through 123.

CROSS STATE AIR POLLUTION RULE (CSAPR)

The applicable requirements of the CSAPR are incorporated into the permit (Conditions 124 through 131). Specifically, the permittee is subject to the following CSAPR requirements: the NO_x Annual Trading Program (40 CFR Part 97, Subpart AAAAA), the SO₂ Group 1 Trading Program (40 CFR Part 97, Subpart CCCCC), and the NO_x Ozone Season Group 3 Trading Program (40 CFR Part 97, Subpart .GGGGG).

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit will be place on public notice from April 13, 2022 to May 13, 2022. The notice will be published in the Brunswick Times-Gazette on April 13, 2022.